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WHAT IS CLAIMED IS:

1.A method for separating a complex substance of a "specific molecule" in a sample and a "substance capable of changing dielectrophoretic properties of the specific molecule" which binds to the "specific molecule" from molecules other than the "specific molecule" in the sample, comprising

forming the complex substance of the "specific molecule" and the "substance capable of changing dielectrophoretic properties of the specific molecule", and

applying the resulting reaction mixture containing the complex substance to dielectrophoresis, and

separating the complex substance from molecules other than the "specific molecule".

2. A method for determining an amount of a component in a sample, comprising

forming a complex substance of a "specific molecule" in a sample and a "substance capable of changing dielectrophoretic properties of the specific molecule" which binds to the "specific molecule",

applying the resulting reaction mixture containing the complex substance to dielectrophoresis,

separating the complex substance from molecules other than the "specific molecule",

measuring the "specific molecule" in the separated complex

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substance or a molecule other than the "specific molecule" in the sample,

determining an amount of the component in the sample on the basis of the measurement result.

- 3. The method according to claim 2, wherein each of the component and the "specific molecule" is a "molecule to be measured".
- 4. A method for separating a complex substance of a "specific molecule" in a sample, a "substance binding to the specific molecule" and a "substance capable of changing dielectrophoretic properties of the specific molecule" which binds to the "specific molecule" from the "substance binding to the specific molecule" which is not involved in forming the complex substance, comprising

contacting the sample containing the "specific molecule" with the "substance binding to the specific molecule", and the "substance capable of changing dielectrophoretic properties of the specific molecule" to form the complex substance, and

applying the resulting reaction mixture containing the complex substance to dielectrophoresis, and

separating the complex substance from the "substance binding to the specific molecule" which is not involved in forming the complex substance.

5. A method for detecting a "specific molecule" in a sample, comprising

contacting a sample containing a "specific molecule" with a

"substance binding to the specific molecule", and a "substance capable of changing dielectrophoretic properties of the specific molecule" which binds to the "specific molecule" to form a complex substance of the "specific molecule", the "substance binding to the specific molecule", and the "substance capable of changing dielectrophoretic properties of the specific molecule",

applying the resulting reaction mixture containing the complex substance to dielectrophoresis,

separating the complex substance from the "substance binding to the specific molecule" which is not involved in forming the complex substance,

measuring the "substance binding to the specific molecule" in the separated complex substance, and

detecting the presence or absence of the "specific molecule" in the sample on the basis of the measurement result.

6. A method for determining an amount of a component in a sample, comprising

contacting a sample containing a "specific molecule" with a "substance binding to the specific molecule" and a "substance capable of changing dielectrophoretic properties of the specific molecule" which binds to the "specific molecule" to form a complex substance of the "specific molecule" and the "substance capable of changing dielectrophoretic properties of the specific molecule",

applying the resulting reaction mixture containing the complex substance to dielectrophoresis,

separating the complex substance from the "substance binding to the specific molecule" which is not involved in forming the complex substance,

measuring the "specific molecule" or the "substance binding to the specific molecule in the separated complex substance or the "substance binding to the specific molecule" which is not involved in forming the complex substance, and

determining an amount of the component in the sample on the basis of the measurement result.

7. A method for determining an amount of a component in a sample, comprising

contacting a sample containing a "specific molecule" with a "specific molecule labeled by a labeling substance", and a "substance capable of changing dielectrophoretic properties of the specific molecule" which binds to the "specific molecule" to form a labeled complex substance of the "specific molecule labeled by the labeling substance" and the "substance capable of changing dielectrophoretic properties of the specific molecule",

applying the resulting reaction mixture containing the labeled complex substance to dielectrophoresis,

separating the labeled complex substance from the "specific molecule labeled by the labeling substance" which is not involved in forming the complex substance,

measuring the "specific molecule labeled by the labeling substance" in the separated labeled complex substance or the "specific molecule labeled by the labeling substance" which is not involved in forming the complex



substance, and

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determining an amount of the component in the sample on the basis of the measurement result.

- 8. The method according to any one of claims 1 to 7, wherein the sample containing the "specific molecule" is a sample derived from a living body, or a treated material of the body-derived sample.
- 9. The method according to my one of claims 1 to 8, wherein the "substance capable of changing dielectrophoretic properties of the specific molecule" is a substance which can give to the "specific molecule" dielectrophoretic properties, on the basis of which the "specific molecule" can be separated from molecules other than the "specific molecule" contained in the sample by dielectrophoresis, by binding the "specific molecule".
- 10. The method according to any one of claims 1 to 9, wherein the "substance binding to the specific molecule" is a substance which binds to the specific molecule by an "antigen"-"antibody" reaction, a "sugar chain"-"lectin" reaction, an "enzyme"-"inhibitor" reaction, a "protein"-"peptide chain" reaction, a "chromosome or nucleotide chain"-"nucleotide chain" reaction.
- 11. A kit for measuring a component in a sample, comprising a "substance capable of changing dielectrophoretic properties of the specific molecule" in the sample, which can form a complex substance with the

"specific molecule".

- 12. A kit for measuring a component in a sample comprising a "substance binding to a specific molecule" in the sample and a "substance capable of changing dielectrophoretic properties of the specific molecule", wherein these substances can form a complex substance with a "specific molecule" in a sample.
- 13. The kit according to claim 10 or 12, further comprising a combination with a dielectrophoresis apparatus.
- 14. A method for separating two or more kinds of molecules, each other, which comprises placing a solution in which the two or more kinds of molecules are dissolved under a nonuniform electric field having an electric field strength of 500 KV/m or higher, formed by electrodes which have a structure capable of forming a nonuniform electric field.
- 15. A method for detecting a molecule to be measured in a sample, which comprisis

reacting a liquid sample, in which a "molecule to be measured" is dissolved, and a solution, in which a "substance specifically binding to the molecule to be measured" is dissolved, to obtain a solution in which a complex substance of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured", and the "substance specifically binding to the molecule to be measured" which is not involved in the reaction are dissolved.



placing the solution under a nonuniform electric field having an electric field strength of 500 KV/m or higher, the field being formed by electrodes which have a structure capable of forming a horizontally and vertically ununiform electric field,

separating the complex substance from the "substance specifically binding to the molecule to be measured" which is not involved in the reaction,

measuring the "substance specifically binding to the molecule to be measured" in the complex substance, and

detecting the presence or absence of the " molecule to be measured" in the sample on the basis of the measurement result.

16. A method for measuring a substance to be measured in a sample, which comprises

reacting a liquid sample, in which a "molecule to be measured" is dissolved, and a solution, in which a "substance specifically binding to the molecule to be measured" is dissolved, to obtain a solution in which a complex substance of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured", and the "substance specifically binding to the molecule to be measured" which is not involved in the reaction are dissolved,

placing the solution under a nonuniform electric field having an electric field strength of 500 KV/m or higher, the field being formed by electrodes which have a structure capable of forming a horizontally and

vertically ununiform electric field,

separating the complex substance from the "substance specifically binding to the molecule to be measured" which is not involved in the reaction, and

measuring the "substance specifically binding to the molecule to be measured" in the complex substance, or the "substance specifically binding to the molecule to be measured" which is not involved in the reaction.

17. A method for measuring a substance to be measured in a sample, comprising

reacting a liquid sample containing a "molecule to be measured", a "molecule to be measured labeled by a labeling substance", and a "substance specifically binding to the molecule to be measured" to obtain a solution containing a complex substance of the "molecule to be measured labeled by a labeling substance" and the "substance specifically binding to the molecule to be measured", a complex substance of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured", and the "molecule to be measured labeled by a labeling substance which is not involved in the reaction,

placing the obtained solution under a nonuniform electric field having an electric field strength of 500 KV/m or higher, the field being formed by electrodes which have a structure capable of forming a horizontally and vertically ununiform electric field,

separating the complex substance of the "molecule to be measured labeled by a labeling substance" and the "substance specifically binding to

the molecule to be measured" from the "molecule to be measured labeled by a labeling substance" which is not involved in forming the complex, and then

measuring the "molecule to be measured labeled by a labeling substance" in the complex substance or the "molecule to be measured labeled by a labeling substance which is not involved in forming the complex substance to determine the amount of the molecule to be measured in the sample based on the results.

- 18. The method according to any one of claims 14 to 16, wherein the solution in which the two or more kinds of molecules are dissolved or the sample containing a "molecule to be measured" is a sample derived from a living body, or a treated material of the body-derived sample.
- "substance specifically binding to the molecule to be measured" is a substance which binds to the molecule to be measured by an "antigen""antibody" reaction, a "sugar chain"-"lectin" reaction, an "enzyme""inhibitor" reaction, a "protein" "peptide chain" reaction, a "chromosome or nucleotide chain"-"nucleotide chain" reaction.
- 20. The method according to any one of claims 14 to 16, wherein any one of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured" is a protein, and the other is a peptide chain.

- 21. The method according to any one of claims 14 to 16, wherein any one of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured" is a chromosome or nucleotide chain, and the other is a nucleotide chain, protein, or peptide chain.
- 22. The method according to any one of claims 14 to 16, wherein any one of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured" is a glucide, and the other is a protein or peptide chain.
- 23. The method according to any one of claims 14 to 16, wherein any one of the "molecule to be measured" and the "substance specifically binding to the molecule to be measured" is a lectin, and the other is a sugar chain.

